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ABSTRACT

In 1975 a survey was conducted of teachers' and administrators' perceptions of the School Planning, Evaluation, and Communication System (SPECS) in two school districts. The purpose of this study was to provide information about the effects of SPECS in action. The first district, called Pine School District in the study report, was located in a western state and had used SPECS in two pilot schools. The other district, designated Maple School District, was located in an eastern state and had recently introduced SPECS in one school. Almost all teachers and administrators who had been involved in the SPECS Program were interviewed. Many specific findings and a few general comparisons emerged. Administrators in Pine reported that the main reasons for introducing SPECS were improved curriculum development, teacher planning, and data collection, communication, and management. Teacher perceptions of actual outcomes of the program indicated that progress had been made in the areas of curriculum development and teacher planning and data collection. In Maple, teacher perception data offered suggestive but not conclusive data that administrator goals were being met. All the administrators in Pine expressed satisfaction with the SPECS Program and Pine teachers strongly agreed. In Maple two of the three administrators felt a program like SPECS was needed but most teachers evaluated SPECS negatively. The survey suggested that the lack of support from Maple teachers may have been caused by not having a choice about participating, enough control over the program or their own materials, a tangible end product, or a full-time curriculum director. (Author/JM)

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SPECS IN TWO DISTRICTS:

The Perceptions of Teachers and Administrators

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I would like to thank the teachers and administrators who so generously participated in this study.

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In May, 1975 a group of five researchers from CEPM conducted a survey of teachers' and administrators' perceptions of SPECS in two school districts. The purpose of this study was to provide information about the effects of SPECS in action. The first district, which was located in a Western state, had used SPECS in two pilot schools during the school year 1974-75. The other district, located in an Eastern state, had introduced SPECS in one school during the same school year.

In the following sections, teacher perceptions and administrative perceptions will be reported, followed by a few general observations.

The western school district will be named Pine School District in this paper. This district, located in a major mining area, enrolls approximately 9,500 students throughout its twenty-one schools. The K-12 district emphasizes vocational education. The district also has a history of organized groups within the faculty and administration; for example, the administrators are one of the few administrative groups in education who are represented by the Teamster's Union. Pine School District's central organization includes the Superintendent, Assistant Superintendent, Curriculum Director, and the Coordinator for Federal Funding and Personnel.

As mentioned above, SPECS was piloted in two schools in Pine District during the 1974-75 school year. One of these schools was K-3; the other was 1-6.

The master plan for SPECS in Pine District calls for implementation of SPECS in all district schools by school year 1977-78.

The Eastern school district, which will be named Maple School District in this paper, is located in an area of rolling hills and lovely, expensive homes. This district has had few financial problems in past years; however, this seems to be changing with legislative changes which channel district funds elsewhere within the state in an attempt to equalize educational opportunities.

Maple School District's 3,200 students attend one of five schools located within the K-6 district. The professional personnel for the district number approximately 160 and most are classroom instructors. The central administration includes the Superintendent, Assistant Superintendent, Business Manager, Curriculum Director, Transportation Director and the Food Services Director.

Maple School District piloted SPECS in one new school during the 1974-75 school year. Because of unforeseen budget cuts, however, the program was scheduled to be discontinued at the end of that school year.

An attempt was made to interview all teachers and administrators in both districts who had been involved in the SPECS program. The three researchers who traveled to Pine School District interviewed all of the sixteen teachers who had been using SPECS and all four administrators who were directly involved in the SPECS program. In Maple School District, twenty-eight of the thirty-one teachers who used SPECS and all of three directly involved administrators were interviewed by two other investigators.[1] Teacher interviews were on

a fixed schedule and lasted an average of twenty-seven minutes. The separate interview schedule for administrators was also fixed, with administrator interviews averaging thirty minutes.

The interview schedules are supplied as appendices at the end of this paper. Appendix A consists of the teacher interview schedule; the interview schedule for administrators is given as Appendix B.

Because of the marked differences between the Pine District Schools and the Maple District School, data for each group will be reported separately. The two western schools will be simply referred to as Pine, and the eastern school as Maple. The reader is cautioned, however, to remember that these names are being used to designate only the pilot schools involved in SPECS, and that within the teaching staff only teachers who used SPECS materials were interviewed.

SECTION I TEACHER PERCEPTIONS

Each of the sixteen teachers in Pine District and the twenty-eight teachers in Maple District were interviewed by one of the five researchers. The interviews were tape recorded, transcribed, and coded. Teachers were assured anonymity in their responses, and respondents were encouraged to say as much or as little about each item as they desired.

In the subsections below the number of teachers responding in a similar way on an item will be indicated. This number will be followed by a percentage, in brackets, based on the total number of respondents in the respective district. When a subgroup of a district is being discussed, only the number of teachers responding in given categories will be reported.

Teacher Perceptions Concerning the Introduction of SPECS

Pine

The decision regarding whether or not SPECS should be adopted in the two Pine schools was made jointly by the administration and the teaching staff of these schools. After a two-day voluntarily attended conference on SPECS, the teachers voted on a go/no-go decision, but it is not clear whether this decision meant go/no-go for the entire school or only for the individual teacher's participation in the program. When asked "Did you personally have any role in the decision to adopt SPECS?," 7 teachers [44%] answered YES, 8 [50%] answered NO; and 1 teacher's response could not be coded. Of the teachers who answered NO, several commented that the school had already been designated as a pilot school prior

to the vote made by the teachers. However, the teachers unanimously indicated that they had been given a choice as to whether or not they would use SPECS in their own classrooms. Therefore Pine teachers did have some role in the decision to pilot SPECS since the cooperation of at least some teachers was necessary to proceed.

When asked whether they felt any pressure to adopt SPECS in their own classroom, 6 teachers [38%] answered YES, and 10 [62%] answered NO. However, the teachers who indicated feeling some pressure did not seem to find it particularly unpleasant. The types of pressure which were mentioned included the desire to support the administration, a reluctance to disappoint members of the administration, and the desire to appear cooperative. In addition, two teachers mentioned tenure as a factor which influenced their decision.

When asked to describe their initial feelings about SPECS, 5 teachers [31%] reported feeling unambivalently enthusiastic about the program; 5 [31%] mentioned feeling somewhat apprehensive or confused; 2 [13%] stated that they were opposed to SPECS and the remaining 4 [25%] were noncommittal. Teachers were then asked to categorize these responses on a scale from one to five with one being "very favorable" and five being "very unfavorable." The responses are given in Table 1.

Table 1

Pine Teachers' Initial Reactions to SPECS

Response	Very Favorable	Somewhat Favorable	Indifferent	Somewhat Unfavorable	Very Unfavorable
Number of Teachers	2	9	2	2	1
Percent	13%	56%	13%	13%	6%

Teachers reported that they had received instruction in SPECS in a two-day inservice workshop. They had also received assistance from the administration as well as being given an opportunity to enroll in a class in SPECS for college credit. Teachers estimated the average total time of early training to be approximately fifteen hours. When asked about the adequacy of this training, 8 respondents [50%] indicated that they felt that the training was adequate, while the remaining 8 [50%] saw it as being inadequate. The most frequent criticisms were that too much information was presented in too little time and that the different spokesmen for SPECS sometimes contradicted one another.

Maple

In Maple the teachers reported that the decision to adopt SPECS was made on the administrative level and all teachers were expected to comply. No teacher reported having any role in the decision to adopt SPECS at either the school or individual level.

When asked who made the decision that they as individuals would use SPECS, teachers responded that it was either "the administration" or the name of some individual in the administration.[2]

When asked about their initial reactions to SPECS, 5 teachers [18%] reported positive feelings; 12 [43%] indicated no inital expectations; 7 [25%] said they were confused or unsure; and 4 [14%] were generally negative. When teachers were asked to categorize this initial response to SPECS, the results were as given in Table 2.

Table 2

Maple Teachers' Initial Reactions to SPECS

Response	Very Favorable	Somewhat Favorable	Indifferent	Somewhat Unfavorable	Very Unfavorable
Number of Teachers	1	11	6	8	2
Percent	4%	39%	21%	29%	7%

It was reported that training in SPECS for most teachers consisted of a 2½ day workshop conducted by SPECS developers. Several teachers mentioned two or three later meetings with SPECS personnel from CEPM to solve problems or answer questions. On the average, teachers estimated that approximately 17 hours had been devoted to instruction and training. Seventeen teachers [61%] considered their training to be adequate; 7 [25%] rated their training as inadequate; and 4 [14%] either had no opinion or had not attended the workshop. Three of the teachers who saw the training as being inadequate commented that the workshop

concentrated on math rather than the area in which they were using SPECS, four said that they had not learned all they needed to know, and one saw the training as being too authoritarian.

Comments

In some ways the initial teacher response to SPECS was similar across the two districts. In both areas some teachers initially liked SPECS, some disliked SPECS, and a sizable number ambivalent, neutral or confused. The difference between areas in the way teachers categorized these initial feelings did not approach statistical significance.[3]

However, it would be misleading to say that the reaction of teachers to the introduction of SPECS showed no differences. The reaction to the SPECS program per se was roughly the same. By contrast the reaction to the way in which SPECS was brought into the schools differed. In Pine, teachers felt that they had been given a clear choice concerning whether they would or would not be a part of the SPECS program. The comment of one teacher at Pine was highly representative of that group:

> *"We as a school, we voted whether we wanted to go for SPECS in our math program or whether not to. We had a vote and we didn't have to do it if we didn't want to."*

On the other hand, in Maple some teachers seemed to resent the fact that they were given no choice in the matter. Several of the teachers' comments are presented below:

> *"By rights we had a role, but we really didn't have a role. We were told that this is what we are going to do."*

"I was given no choice at all."

"It was forced on us."

It is impossible to assess the generality of these feelings because no question was specifically asked about the teacher's reaction to the method by which the decision to adopt SPECS was made.

The Use of SPECS as Described By Teachers

Pine

Almost all of the teachers in Pine began using SPECS in math, the area which was chosen by the teachers as a group. Several teachers commented that math was selected because the subject matter in that area is precise and well-defined. Only one teacher reported using SPECS in a different subject area, reading. Eight of the respondents [50%] indicated that they had begun using SPECS in one or more additional subject areas. Four teachers mentioned having used SPECS materials in teaching science, five used SPECS in social studies, two used SPECS in English, three used SPECS in language related skills, and one used SPECS in health classes. These areas were chosen by the teachers on a voluntary basis.

Fifteen out of the sixteen teachers [94%] indicated that they were planning to begin using SPECS in one or more new subject areas in the future. The most popular courses for future planning were social studies, mentioned by eight teachers, and science, mentioned by seven teachers.

The teachers were asked about the activities which were involved in teaching math under the SPECS format. Their responses were quite varied. Different individuals mentioned some or all of the following: construction of flowcharts, writing objectives, developing pre- and post-tests, planning lessons, and keeping detailed records.

SPECS developers suggest that teachers engage in four distinct procedures: (1) specifying objectives, (2) instructional planning tied to those objectives, (3) recording pupil performance on those objectives, and (4) summarizing program information. SPECS provides forms for each of these procedures, and the teachers were asked which forms they used. In the area of specifying objectives 13 teachers [81%] reported that they had used at least one SPECS provided form. Three [19%] reported that they had developed alternative forms.

Ten teachers [63%] reported having used SPECS forms for instructional planning, 4 [25%] had continued to use lesson plan books, and 2 [12%] had developed their own forms.

For recording pupil performance 11 teachers [69%] stated that they had used SPECS forms; the rest used grade books or individual files.

Finally, only one teacher [6%] indicated having used SPECS program summaries. Almost all teachers indicated that they anticipated writing summaries, however.

Teachers were asked about the advantages and disadvantages that result from using SPECS forms. Eleven teachers [69%]

responded that they had been pleased with SPECS materials. Typically teachers in this group remarked that the forms were concise, well-organized, and complete. The remaining 5 teachers [31%] indicated that they had not particularly liked SPECS forms, finding them to be hard to follow, inflexible, and inconvenient for substitutes. At least three teachers remarked that the latest forms (released in 1975) were an improvement over the forms in use during the 1974-75 school year.

Maple

With four exceptions, the Maple staff began using SPECS in the area of reading. The choice of this area was apparently controversial. Several teachers indicated that the faculty had voted to begin using SPECS in math. However, teachers reported that the administration had advocated starting SPECS in reading. Regardless of the method of decision-making, 24 teachers [86%] began with reading and none began with math. The remaining 4 teachers [14%] began using SPECS in their own areas of special expertise.

Three of the 28 respondents [11%] indicated that they had applied SPECS in an additional subject area with one of these three teachers indicating that they also planned to use SPECS in one other new area. Of the remaining 25 teachers, two anticipated using SPECS in a new area in the future.

In response to the question, "What is involved when you teach reading (or other subject as appropriate) under the SPECS

format?" teachers predominantly mentioned writing objectives, pre-and post-testing, and record keeping. It is worthy of note that six teachers reported that they did nothing under the SPECS format except produce the required forms. Three others stated that they were not sure whether SPECS had made any difference in their reading programs.

As mentioned above, SPECS developers provide forms for each of four instructional procedures: (1) specifying objectives, (2) instructional planning tied to those objectives, (3) recording pupil performance data and (4) summarizing program information.

Fourteen teachers [50%] reported using the SPECS documents which were created for specifying objectives. All except two staff members, however, stated that they had written program summaries, and in many instances, this form had replaced other documents in the role of specifying objectives. That is, program summaries were written relatively early in the year and were adapted to specifying objectives for a course rather than for summarizing a course that had already been taught.

Six of the Maple teachers [21%] used SPECS forms for planning; the remaining 22 teachers [79%] used plan books or forms of their own devising.

Twenty-five teachers [89%] used SPECS documents for recording pupil performance; and, as mentioned earlier, 26 [93%] wrote program summaries.

In discussing the advantages and disadvantages of SPECS forms for use with reading, teachers repeatedly stressed one

major point which actually has little to do with the forms themselves. This major point of agreement was duplication of forms. The school-wide Houghton Mifflin reading series was apparently quite well-structured. The teacher's manual for the series came complete with designated objectives, lesson plans, and cards for recording pupil performance. Clearly there was a high degree of overlap in the content covered by the SPECS forms and by the Houghton Mifflin materials.

In spite of the above problem 20 of the Maple teachers [71%] made at least one favorable observation about SPECS forms. Advantages were seen in conciseness, organization, and keeping everything in one place.

On the other hand, 23 teachers [82%] pointed out some disadvantages which included too many forms, inflexibility, no room for comments, and dislike of coding. These comments may have reflected attitudes about the redundancy of materials as well as objections to the SPECS forms themselves.

For the sake of completeness, it should be mentioned that of the four teachers who began using SPECS in areas of special expertise rather than reading, none described SPECS forms as redundant, but three of the four indicated that there were too many forms for the type of course they taught.

Comments

In Pine the SPECS format was used as the basis for planning and teaching math. The teachers there worked to develop their

own programs for teaching mathematics in an attempt to fashion a teaching program which would best meet the needs of their district. The use of SPECS seemed to be an integral part of this effort. However, the staff was allowed total flexibility in the use of documents. SPECS documents were made available to the staff, but no requirements were placed on the use of those documents. The fact that most teachers chose to use the provided documents and continued this use over the course of a year is taken as evidence that the forms were judged to be helpful and at least minimally satisfactory.

The reading program in Maple was primarily based on the published materials of the reading series used in the school. For most teachers this was the Houghton Mifflin series although a few teachers mentioned using other additional series. At any rate, the structure of the reading program was, for the most part, built into the materials from Houghton Mifflin. It would appear that SPECS materials were used as a postscript in many, if not almost all, teachers' reading programs. By way of example, one teacher described the process as follows:

> *"I use the Houghton Mifflin series. After each magazine, there is a test given, supplied by the publishers. I then grade, and according to the publishers' recommendations, record them on cumulative record sheets, reading sheets, and then I record them on a SPECS format."*

It is clear that for this teacher SPECS was not an integral part of developing and planning. Other teachers were more explicit:

OBJECTIVES *"I don't even bother looking at the SPECS forms. We had to write objectives, G.O.'s and P.O.'s..., and all they were were G.O.'s and P.O.'s that came right out of the teachers' manual."*

PLANNING *"I write lesson plans,...but I don't use them. I make them up, if you want me to be honest."*

RECORDING *"I keep my own records, usually in my grade book, and it was just putting it on another piece of paper."*

Comments such as these suggest that SPECS was not so much used as merely tolerated by some teachers in Maple. Teachers were required to complete program summaries and were also expected to keep SPECS records of pupil performance. Without such pressure from the administration, it is doubtful that SPECS forms would have been used as widely as they were.

Finally it is clear that the extension of SPECS into other areas differed between the two areas. Table 3 summarizes the information given in the text above. Maple teachers were less likely to have used SPECS in more than one subject area. They were also less likely to report the intention to use SPECS in another subject area in the future, but this result could be mainly a function of the fact that SPECS was not funded to continue in Maple.

Table 3

The Actual and Planned Use of SPECS in Additional Courses in Pine and Maple

Interview Schedule Item 7: *Have you begun using SPECS in any other curriculum areas?*

	Yes		No	
	Number	Percent	Number	Percent
Maple*	2	7%	24	86%
Pine	8	50%	8	50%

Interview Schedule Item 8: *Is it your intention to use SPECS in another subject area in the future?*

	Yes		No	
	Number	Percent	Number	Percent
Maple*	3	11%	23	82%
Pine	15	94%	1	6%

*The responses of two teachers could not be coded. Percentages are based on N = 28.

Teacher Perceptions Concerning the Interaction of Teachers and Administrators

Pine

Most teachers indicated that they discussed their completed SPECS documents with building or district administrators on a fairly frequent basis. Seven of the teachers [44%] reported such discussions occurred at least once a week, three teachers [19%]

reported meeting once per month, and three teachers [19%] did not indicate the frequency of the meetings. Three teachers [19%] reported no meetings at all.

Almost all teachers described these meetings as being helpful for the teacher in that the administrator offered a second opinion on problems the teacher encountered. Only one teacher intimated that the meetings were a check on teacher performance.

Exactly 50% of the teachers responding said that they would have found more feedback to be useful; the remaining 50% indicated that they received sufficient feedback.

Maple

Seventeen teachers in Maple [61%] said that they discussed completed SPECS documents with a district or building administrator between two and four times per year. Seven teachers [25%] reported meeting between five and eight times per year, 2 teachers [7%] reported weekly meetings, and 2 teachers [7%] did not respond to this item.

The purpose of the meetings was variously perceived. Two teachers [7%] felt the purpose of the meetings was to help the teacher. Nine teachers [32%] felt the purpose was to check the teachers' progress and/or correct use of forms. Four teachers [14%] felt that the purpose of the meetings was for the administrator to suggest improvements in their program. Seven teachers [25%] reported discussing materials and individual students. The remaining 6 teachers [21%] did not not answer this question.[4]

Teachers were then asked if more feedback would have been useful. Seven teachers [25%] said that they would have found more feedback to be useful; 15 [54%] indicated that they had received sufficient feedback; and 6 [21%] did not respond to this item (see footnote).

Comments

In Pine meetings between teachers and administrators were normally held at the teachers' request. Teachers had maximum freedom in determining the frequency and timing of meetings. No documents were collected by the administration.

In Maple meetings were initiated by the administration as well as by the teaching staff, and teachers were required to submit program summaries.

Whether meetings were held at the teachers' or administrators' request may have influenced the teachers' perceptions of the purpose of those meetings. Teacher-initiated meetings tended to be seen as helpful for the teacher. Administrator-initiated meetings were sometimes viewed as being helpful for the teacher but were also often seen as a check on the teacher's progress or as an opportunity for administrative input into the teacher's program.

Teacher Perceptions Concerning Actual Consequences of SPECS

Time Spent Teaching Under the SPECS Format as Reported by Teachers

Pine

Teachers were asked to estimate the number of hours they spent per week on math outside of the time actually

spent teaching it to students. This estimate was to include time spent planning, evaluating, record keeping, etc. The average estimate was 3.6 hours. Seven teachers [44%] indicated that this was more outside time than they previously spent on preparing math. Two teachers [13%] reported that the time they spent in preparing math was the same as in earlier years. Three teachers [19%] stated that more time was required early in the year but that later there was less demand on teacher time. These responses were classified as same. (Four teachers [25%] had had no prior experience.)

Considering for a moment just the 7 teachers who reported spending more time on preparing math with SPECS, these teachers were asked how much more time was needed in preparation per week. The mean of their estimates was 1.8 hours per week increase in time spent in preparation for math using SPECS. Lastly, these seven teachers were asked whether, in their opinion, the quality of their instructional program had improved commensurate with the additional time they were spending on it. Six replied in the affirmative, one in the negative.

Maple

Maple teachers reported an average of 5.6 hours per week spent in planning, evaluating and record keeping for the course they taught using SPECS. Fifteen [54%] stated that this was more outside time than they had previously spent

on their course, 11 [39%] judged the out-of-class teacher time to be the same, and 2 [7%] had not taught the course before. No teacher indicated that less outside time was spent on the course when taught under the SPECS format.

The teachers who stated that more outside time was spent on their SPECS course were asked to estimate the number of additional hours per week. The mean judgment was 2.3 hours per week. The same subset of teachers was asked if their instructional program had improved commensurate with the additional time they were spending on it. Two answered YES, eleven answered NO, and two reserved judgment.

Comments

The data clearly shows that teachers in this study perceived that they spent as much or more time in course planning, evaluating, and record keeping than they had spent in previous years on the same course. No teacher in either district considered SPECS to be a time saver. Averaging across teachers in each of the two areas and considering the response SAME to indicate zero increment, the average reported increase in time spent was 1.16 hours per week in Pine (math) and 1.26 hours per week in Maple (reading).

In examining these results, one should bear in mind that the estimates of time spent outside the classroom apply only to the first year of SPECS use. Whether the pattern changes in the second or third years of applying SPECS is an unanswered question.

Benefits of SPECS as Reported by Teachers

Pine

Teachers were asked to specify the major benefits they had experienced as a result of using SPECS. All of the Pine teachers mentioned one or more major benefits. The responses were categorized and are presented in Table 4.

Table 4

The Major Benefits of SPECS as Reported by Pine Teachers

Benefits to Teacher	*Number of Teachers Who Mentioned This	Percentage
Better planning and improved organization	11	69%
Improved communication with colleagues	4	25%
Improved coordination with other grade levels	3	19%
Objectives of the course are more clear	3	19%
Increased awareness of individual student's progress	3	19%
Improved communication with parents	3	19%
More meaningful or more accurate student evaluation	2	13%
More independent student work	2	13%
Increased awareness of amount of material covered in course	2	13%
Increased awareness of individual student needs	1	6%
Helps self-evaluation of teacher	1	6%

*An individual's response could include more than one benefit.

Maple

When asked about major benefits, twelve of the Maple teachers [43%] answered that there were no major benefits from using SPECS. The remaining teachers' responses were distributed as in Table 5.

Table 5

The Major Benefits of SPECS as Reported by Maple Teachers

Benefits to Teacher	*Number of Teachers Who Mentioned This	Percentage
Objectives of course are more clear	8	29%
Better planning and improved organization	4	14%
Improved communication with parents	2	7%
Increased awareness of individual student progress	2	7%
Increased awareness of individual student needs	2	7%

*An individual's response could include more than one benefit.

Comments

Several teachers in both districts mentioned that under the SPECS format (1) the objectives of a course are more clear and (2) the teacher achieves better planning and improved organization.

Overall, the Pine teachers cited more benefits than did Maple Teachers. Correspondingly a substantial proportion of

the Maple teachers [43%] stated that they had experienced no major benefits from using SPECS.

Problems Caused by SPECS as Reported by Teachers

Pine and Maple

In an attempt to get a candid view of some of the drawbacks of SPECS for teachers, the following question was asked: "Often a major change in the way schools are operated will be accompanied by some problems. In your experience, what have been the problems for you as a classroom teacher resulting from using SPECS?"

The answers to this question were similar enough across areas to permit presentation in a single table (see Table 6).

Table 6

Teacher Perceptions of Problems Associated with SPECS in Two Districts

	Pine		Maple	
	Number	Percent	Number	Percent
Time involved for teacher	8	50%	11	39%
Too much paper work and/or record keeping	0	0%	12	43%
Difficulties in learning to use SPECS materials (getting started)	4	25%	3	11%
Problems with terminology and/or coding	1	6%	4	14%
Problems in writing or wording objectives	3	19%	2	7%
Too much testing or problems with pre-testing	1	6%	3	11%
Teacher taken from classroom	2	13%	1	4%
Tension and unhappiness in the school	0	0%	2	7%

Comments

Considering all the teachers in both areas, the most frequently mentioned problem was the amount of time required in the use of SPECS. However, in Maple only, the problem of time was mentioned slightly less frequently than the related problem of too much paperwork and record keeping. Although the Pine teachers who mentioned that SPECS was time-consuming could have been indirectly referring to increased paper work, it is interesting that only Maple teachers directly stated that this was a problem. The Maple teachers' objections to paperwork are very likely a reflection of the double recordkeeping mentioned earlier in this paper.

Teacher Perceptions Concerning Possible Consequences of SPECS

Pine and Maple

A twenty-three item questionnaire was given to teachers toward the end of each interview. Each item on the questionnaire represented a possible consequence of the SPECS program. These items were collected from three sources: (1) statements of teachers in other areas who had used SPECS, (2) statements by developers about intended consequences of SPECS, and (3) opinions about possible consequences of SPECS derived from sociological theory.

Teachers were asked to indicate for each item whether it was certainly true, probably true, probably not true or certainly

not true in their particular case. The raw data are given in Appendix C.

In the interest of clarity, the data in Appendix C are presented here in a slightly altered form. First the categories certainly true and probably true were collapsed into a single category labeled simply "yes." Likewise, the categories probably not true and certainly not true were designated "no." Secondly all numbers are given as percentages of the appropriate groups. Table 7 presents the five questionnaire items on which Pine and Maple teachers were in agreement.

Table 7

Pine and Maple Teachers Agree on Possible Consequences of SPECS (Transformed Data)

			Pine	Maple	Total*
2.	The testing SPECS requires is detrimental to my total program.	YES	7%	11%	10%
		NO	93%	89%	90%
4.	I feel myself devoting more time to teaching SPECS subjects in the classroom.	YES	46%	41%	43%
		NO	54%	59%	57%
7.	Children are shifted among instructional groups more often than they were previously.	YES	27%	15%	20%
		NO	73%	85%	80%
8.	There is less room for spontaneity in my daily teaching under SPECS.	YES	13%	38%	27%
		NO	87%	62%	73%
11.	I have become more involved in budgeting matters.	YES	6%	12%	10%
		NO	94%	88%	90%

*This column presents percentages based on all teachers in both districts (N=44).

On the five items in Table 7 there were no significant differences between the two districts. Pine and Maple teachers strongly agreed that the testing SPECS required was not detrimental to their total programs and that they had not become more involved in budgeting matters. Most of the teachers in both areas indicated that children are not shifted among instructional groups more often than they were previously, and most of the teachers in both areas denied that there is less room for spontaneity in their daily teaching under SPECS. Finally, slightly more than half of the teachers in both districts stated that they did not feel that they were devoting more time to teaching SPECS subjects in the classroom.

In Table 8 teachers' responses to the remaining 18 items from the questionnaire are presented. Each of these items demonstrate statistically significant differences in teacher responses between the two districts.[5]

Table 8

Pine and Maple Teachers Disagree on Possible Consequences of SPECS
(Transformed Data)

			Pine	Maple	Total*
1.	My instruction is more individualized.	YES	88%	37%	56%
		NO	12%	63%	44%
3.	I can better measure and evaluate student learning.	YES	100%	50%	68%
		NO	0%	50%	32%
5.	There is more interaction between me and individual students.	YES	81%	26%	47%
		NO	19%	74%	53%
6.	Teaching has become more difficult for me.	YES	0%	36%	23%
		NO	100%	64%	77%
9.	My goals and objectives are better coordinated with those of other teachers	YES	93%	22%	46%
		NO	7%	78%	54%
10.	SPECS produces so much information that it is often confusing.	YES	31%	68%	55%
		NO	69%	32%	45%
12.	My planning of an entire course has improved.	YES	100%	29%	55%
		NO	0%	71%	45%
13.	Student achievement is higher in SPECS courses than it used to be.	YES	75%	8%	30%
		NO	25%	92%	70%
14.	I find that it is easier to report to parents concerning the progress of their child.	YES	100%	43%	64%
		NO	0%	57%	36%
15.	I am better able to choose appropriate course materials.	YES	100%	33%	58%
		NO	0%	67%	42%
16.	SPECS causes more tension between the teaching staff and the administration.	YES	6%	74%	49%
		NO	94%	26%	57%
17.	The attitudes of students toward SPECS subjects has improved.	YES	69%	4%	26%
		NO	31%	96%	74%

			Pine	Maple	Total*
18.	Overall, SPECS is more of a hindrance than a help in my daily work.	YES	6%	63%	42%
		NO	94%	37%	58%
19.	Morale of teachers has generally improved as a consequence of the SPECS program.	YES	88%	7%	36%
		NO	12%	93%	64%
20.	SPECS takes too much time.	YES	14%	86%	62%
		NO	85%	14%	38%
21.	SPECS won't work when dealing with the affective domain.	YES	7%	48%	33%
		NO	93%	52%	67%
22.	SPECS involves too much repetition in class preparation.	YES	0%	70%	44%
		NO	100%	30%	56%
23.	Clerical help is necessary to properly implement SPECS	YES	31%	89%	67%
		NO	69%	11%	33%

*This column presents percentages based on all teachers in both districts (N=44).

It may be noted that for 15 of the 18 items in Table 8, the more frequent response in Pine was the less frequent response in Maple.

A closer examination shows an interesting pattern of differences in Table 8. Formally speaking, the questionnaire is not an evaluative measure because teachers did not have an opportunity to make clear whether they viewed a possible outcome as desirable or undesirable. Yet, with the possible exception of Item 23, the desirability of the possible outcomes is fairly readily apparent. For <u>all</u> items which show a significant difference between areas, Pine teachers responded in a more positive (i.e., pro-SPECS) manner than did Maple teachers. This indicates one of two possible states. One possibility is that SPECS truly had a very different

pattern of consequences in the two areas. The other possibility is that Pine teachers simply liked SPECS more than did Maple teachers (for whatever reasons); and that this affective factor produced a general positive bias in assessing possible consequences.

Finally, there is a slight tendency for judgments in Maple to be more certain than judgments in Pine. Considering all possible judgments for the data in Appendix C [certainly true, probably true, probably not true, certainly not true], 46% of the responses from Maple teachers fall in extreme categories 1 and 4. Correspondingly, only 38% of Pine judgments fall in these categories.

Teacher Evaluation of SPECS

Teachers were asked to directly evaluate SPECS in questions 19 and 20 of the interview. First teachers were asked: "Have the benefits been worth the problems SPECS has caused?" The pattern of responses show clear differences between the two areas. In Pine, 14 teachers [88%] answered YES, none [0%] answered NO, and 2 teachers [13%] reserved judgment. In Maple, 6 teachers [21%] answered YES, 18 [64%] answered NO, and 4 teachers [14%] reserved judgment.

Secondly, the question was posed: "Knowing what you know now, would you choose to adopt SPECS in your classroom if you were given a choice?" Again there is a strongly significant difference between areas. In Pine, 16 teachers [100%] answered YES while none [0%] answered NO. In Maple, 6 teachers [21%] answered YES, 20 [71%] answered NO, and 2 teachers [7%] were uncertain.

Because of the importance of this issue, teachers were asked to categorize their responses to the second question. The four categories and the pattern of responses are given in Table 9.

Table 9

Pine and Maple Teachers' Responses to the Question: "Would you choose to adopt SPECS?"

		Pine		Maple	
		Number	Percent	Number	Percent
1.	Certainly adopt SPECS	9	56%	2	7%
2.	Probably adopt SPECS	7	44%	5	18%
3.	Probably not adopt SPECS	0	0%	9	32%
4.	Certainly not adopt SPECS	0	0%	12	43%

These data demonstrate a polarization of views of teachers in the two areas. Pine teachers were unanimous in expressing a positive view of SPECS. They felt that the benefits from SPECS outweighed any problems caused by SPECS, and furthermore stated that they would choose to adopt SPECS if given a choice. The majority opinion in Maple was exactly opposite. Most teachers felt that problems outweighed benefits under SPECS, and most also stated that, with their present knowledge, they would not adopt SPECS if given a choice.

Finally teachers were asked who benefits from the introduction of SPECS into a school district. In answering this

question teachers were asked to rank order seven groups assigning "1" to the group who benefits most, "2" to the group who benefits second most, etc. The average ranks are given in Table 10.

Table 10

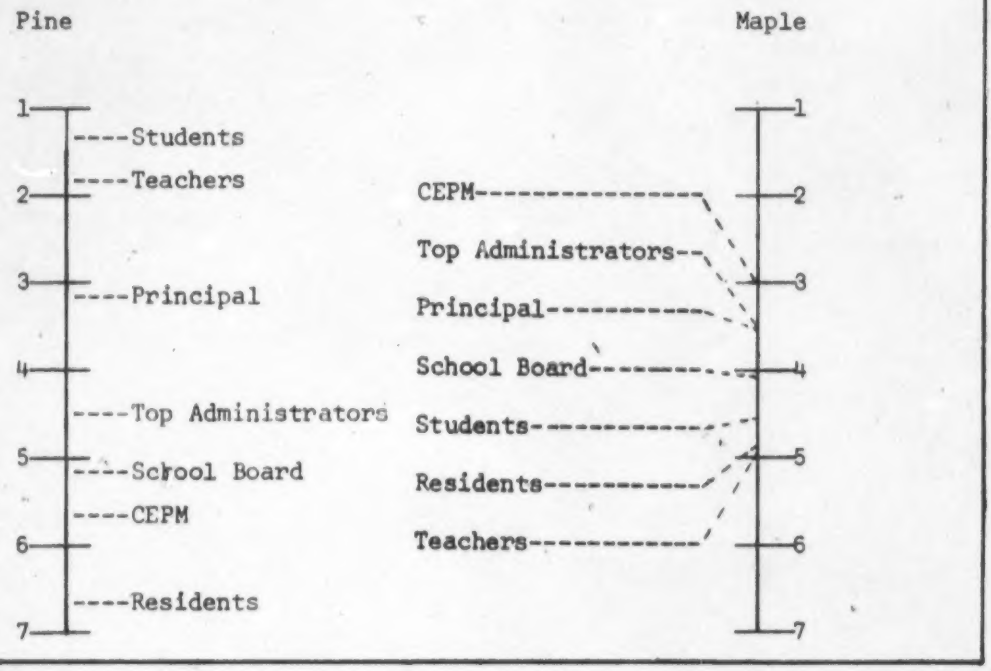
"Who Does SPECS Benefit?"
The Average Ranks Assigned by Pine and Maple Teachers
(1 = SPECS benefits most, 7 = SPECS benefits least)

	Pine	Maple
Residents and taxpayers of the district	6.4	4.8
Teachers	1.8	4.9
Superintendent and other top administrators	4.4	3.4
The school board	5.4	4.1
The students	1.3	4.4
The building principal	3.1	3.5
CEPM	5.8	3.0

These results are illustrated in Figure 1.

Figure 1

Graph of Data from Table 10



The graph illustrates two major points. First the order of items differs. In fact, the average of ranks assigned by Pine teachers is negatively correlated with the average ranks assigned by Maple teachers.[6] Pine teachers felt that students benefit most, followed by teachers, then administrators, then CEPM, and finally residents. This ordering demonstrates a progression from the center of the classroom (students and teachers) to administrators within the school (principal and perhaps superintendent), to administrators outside the school (the school board), to an outside agency (CEPM) and finally to the diffuse group, residents.

There was no similar pattern in ordering provided by Maple teachers. They did indicate that SPECS was least beneficial to teachers, students, and residents, and most beneficial to CEPM and school administrators.

The second major point illustrated by the graph is that the individual teacher rankings show higher consensus in Pine than they do in Maple. Note that if all teachers agreed perfectly in their rankings, each of the seven items would have an average rank equal to the number assigned by each and every teacher. Thus the average ranks would range from one to seven and would be evenly spread out on the scale. If, on the other hand, responses were made randomly or with maximum disagreement among individuals, the average rank of each item would fall at the scale value 4, the midpoint of the scale.

Because the average ranks for Maple teachers are clustered in the interval from three to five, one may infer that there was moderately low agreement among Maple teachers concerning who actually benefits from SPECS.

SECTION II ADMINISTRATOR PERCEPTIONS

Introduction

Four administrators in Pine and three administrators in Maple were interviewed according to the schedule shown in Appendix B. Because the views of only seven individuals are discussed in this section, the results will be given in a less quantitative, more impressionistic manner. This is seen as necessary to protect the anonymity of the respondents.

Pine

In Pine, four individuals in administrative positions were interviewed using the schedule shown in Appendix B. The respondents included one superintendent, two principals and one curriculum director.

Administrators at Pine were introduced to SPECS by one of their group who had studied SPECS as part of a graduate course. Respondents stated that they found SPECS appealing because they liked the concept of management by objectives, and because they liked the idea of systematic planning and data collection especially in regard to Component Three (Instructional Program Planning, Evaluation and Communication). The administrators felt that the district needed to exert an effort in the area of curriculum development and SPECS was seen as a program which could help in this area and at the same time improve communication between the school and community.

In general, respondents indicated that their roles had undergone only minor changes as a consequence of SPECS. Three administrators

mentioned that they spent more time talking to teachers in the past year and one added that the time with teachers was more meaningful. Also one commented that frequent meetings related to SPECS had taken time away from other duties. All administrators indicated increased interest or involvement in development of curricula.

Administrators were asked, "How is SPECS used in this district?" Two administrators simply equated SPECS with Component Three and described teacher activities. The other two gave more general answers, one of which is quoted below:

> *"Well, doing SPECS means identifying ongoing activities by a method of flowcharting and that goes for district wide activities and that has been done by directors, principals, superintendents, teacher. It means doing some precise planning in terms of generating objectives and collecting data relative to those objectives, making decisions based upon the information. It means, of course, right now starting to go into the community and generate community goals. So SPECS just means a way of management for us. It's not an adjunct to the whole program but the whole program becomes based upon the SPECS format of planning."*

Thus, while Component Three was viewed as central in importance (probably by all administrators), SPECS was not designated strictly a teacher activity. Apparently all levels of administration had been involved in SPECS related activities.

Within Component Three, teachers were asked to write objectives, lesson plans, and to keep records of pre- and post-testing. Teachers in one school were asked to generate flowcharts; teachers in the other school may or may not have been. Administrators anticipated that program summaries would be completed at the end of the year.

Although administrators requested rather extensive teacher involvement with Component Three, teachers still had a lot of leeway

in developing their programs. In the first place, participation in the SPECS program was suggested, not demanded. Teachers could, with minimal overt sanctions, ignore SPECS. Secondly, no specific documents were mandated, and no documents were systematically collected at the time of these interviews. Teachers were free to develop their own materials if they wanted to, and they could also pace themselves in the completion of materials.

Administrators in Pine apparently made a strong effort to demonstrate to teachers that SPECS documents were not intended to serve as teacher evaluation instruments. The forms used varied from teacher to teacher as did the achievement indicators. For the most part these documents remained in the teacher's hands. The documents were read informally by administrative personnel, but were not thoroughly reviewed. As one administrator mentioned:

> *"I have some documents. But I haven't really scrutinized them. I feel these are for the teachers' information and if I spend a lot of time going over them they would feel threatened--which I don't want."*

There remains some question concerning the extent to which administrators in Pine generated or determined the content of SPECS documents in Component Three. In general administrators saw themselves as supportive, offering directions and suggestions at the request of the teacher. Although there was some indication that administrators accepted the responsibility for suggesting modifications in a teacher's program, this was apparently undertaken in a spirit of cooperativeness and flexibility.

Administrators were asked to give a rough estimate of the additional dollar costs of implementing and operating SPECS for a year in Pine. Only one individual provided a detailed estimate and his answer will be given here. Prior to the implementation of SPECS in school year 1974-1975 slightly over $2,000 was spent in school year 1973-74 planning activities. During the first year of SPECS use, school year 1974-75, about $2,500 was budgeted for additional costs. These figures include only budgeted expenditures for workshops and conference trips. In addition, the position of curriculum director, was made full-time rather than half-time. Finally, the projection for school year 1975-76 was set at between $7,500 and $10,000.

Pine administrators were asked to identify the major benefits of SPECS from their perspectives. Their responses may be abstracted as follows:

1) There is a clear identification of ongoing activities.
2) SPECS provides a rational decision-making model for the generation and regeneration of curriculum.
3) Component Three planning is student oriented so that actual student needs are being met.
4) SPECS provided information improves coordination between levels.
5) SPECS documents provide help and direction for new teachers.
6) Working with SPECS has increased communication and rapport between teachers and administrators.
7) Teachers are involved in decision-making relative to curriculum.
8) SPECS generated information improves communication between the school and the community, especially with parents.
9) SPECS offers the potential of matching school and community goals.
10) SPECS promotes systematic planning, data-based outcome evaluation, and rational decision making at all levels in the district.

When asked about the major problems associated with SPECS, all administrators concentrated on the factors that made it difficult to sell SPECS to the teachers. Only one individual mentioned a problem

which was personally experienced (item number one below):

1) SPECS makes major demands on my time.

2) Teachers are somewhat distrustful of innovations generated by external agencies.

3) People immediately get the idea that it is too much paperwork, too time consuming, and too demanding.

4) Teachers were concerned that SPECS might be used in teacher evaluation.

5) Teachers who piloted SPECS feared criticism from other teachers in the district.

6) There were problems in getting started. The teachers' workshop was exhausting, contradictory instructions were given by different SPECS consultants, and teachers had problems in writing and wording objectives.

The respondents were asked to evaluate SPECS in their district. Specifically they were asked, "Considering everything--the costs, benefits, and problems--how worthwhile is SPECS?" All administrators expressed satisfaction with the SPECS program. Two gave unqualified positive evaluations. One commented SPECS had been worthwhile in its first year at Pine and voiced optimism for the future. The fourth respondent answered simply, "It has revitalized my interest in education." From an educator, that may be the highest praise of all.

Finally administrators were asked what advice they would have for a school administrator who was considering implementing SPECS. The responses were highly thought provoking:

Administrator 1. *"I would encourage him to look into it and investigate it and get involved with it and find out what the benefits would be for their kids."*

Administrator 2. *"I think I would tell him to probably receive it as we have in this district as a very gradual approach without trying to implement it district*

wide all at one which would be an impossibility. And to not necessarily arbitrarily force it on teachers but proceed to acquaint them with what it will do and the possibilities of it and sell it that way rather than to be too pushy.

Administrator 3. *"Don't push the program. Let the teachers more or less work it out. Help teachers, but don't go in and say well I'd like these things by Friday. Give the teacher some release time. But I think the main thing is to keep encouraging the teachers and don't be negative. If you keep telling them that's wrong then right away they are going to give up."*

Administrator 4. *"The very first thing I would tell him is to first identify the needs across the district. And if you know what your needs are and have identified them clearly, then begin to look at SPECS and see how SPECS will in fact meet those needs. Now if SPECS meets needs, SPECS is accepted. And secondly communicate, be extremely honest giving them information, give them alternatives and allow them to make decisions. And take your time and get involved and not only expect other people to manage by the SPECS model but manage yourself by it. And have it become a mode of operation, not an adjunct to what you are doing. Not something that you use as the icing on the cake but really the total process. Take your time with it and get teachers involved and let teachers and administrators make decisions and listen to those decisions.*

Maple

Three administrative interviews were conducted at Maple. Included were a superintendent, a principal, and a business manager.

SPECS was introduced to the district by one of the administrators who had heard of it through the School Development Council in a nearby city. The administrators stated that SPECS appealed to them because they liked the idea of performance objectives for students, program budgeting, and systematic planning to achieve specfic goals.

No administrator delineated specific problems in the district which SPECS might have helped overcome. Instead the introduction of SPECS was intended to improve the educational system in Maple through improved management and more careful monitering of individual student's progress. Also the administration was aware that the program budgeting of SPECS was within the guidelines for budgeting recommended by the State Department of Education and by the United States Office of Education.

None of the three administrators felt that his/her role was substantially changed by SPECS. One mentioned working more closely with the teaching staff; another mentioned working more closely with other administrators; and the third could not think of any changes.

SPECS activities in Maple were centered around Components Two and Three, that is budgeting and teacher activites. All budgeting was converted from line item to programmed. Concurrently teachers in one school were asked to initiate use of Component Three methods and documents.

In implementing Component Three, teachers were asked to complete documents 6.11 and 6.12 (record keeping documents) as well as writing a Program Summary after the first five months.

SPECS documents were submitted by teachers to the administration and were reviewed approximately every two months in a fairly formal meeting. The administration saw these meetings as an opportunity to answer teachers' questions, to give teachers instructions concerning things to do or things to be changed, and finally as an opportunity

to become more closely attuned to what was happening in the classroom.

The cost of the program for a year in Maple was estimated at $14,000.

Administrators were asked what were the major benefits of SPECS. The responses to this question were varied. Each benefit below was mentioned by one administrator (except for item 1 which was mentioned by two individuals):

1) SPECS encourages teachers to analyze what they do in a more logical, systematic, fashion.

2) SPECS trains teachers to perform more effectively as planners and facilitators of education.

3) SPECS gives teachers an opportunity to carefully monitor the progress of individual students.

4) SPECS embodies the proper organization of the school district.

5) SPECS will help with budget approval.

Only four problems were mentioned by administrators:

1) Teachers are reluctant to risk involvement with a new system.

2) Teachers fear that they are generating information that could be used against them.

3) Teachers are reluctant to accept the extra workload.

4) SPECS resulted in a communication gap between teacher and administrators.

The respondents were asked to consider the costs, benefits, and problems associated with SPECS and to formulate an opinion about how worthwhile the program was. Two administrators answered that they liked SPECS and that SPECS or some similar program should be used in the district. The third administrator answered that he did not know how worthwhile SPECS was.

Finally the administrators were asked what advice they would give to another administrator who was considering implementing SPECS in his district.

Administrator 1. *"The first thing I would do would be to ask him what his ultimate purpose in implementing SPECS was. If he said that he felt it appeared to be a useful device to hold the teachers accountable for their productivity, I'd tell him to forget it. If, on the other hand, he said that SPECS seemed to be a well designed program...I'd say, move out with it.*

It would seem to me that in an established district you're going to run into a different set of challenges. The staff may be suspicious of new directions, probably rightly so....Under those circumstances, an administrator would be faced with the job of reviewing SPECS to a higher degree than we found necessary to convince the staff that it had some merit on paper and, indeed, might have some merit with respect to their own district."

Administrator 2. *"I'd tell him that he probably would be a step ahead of most of the other districts in the country if he would go into it and the sooner, the better."*

Administrator 3. *"I'd tell them to try to overcome the communication problem....I see the need for someone, maybe grade level leaders, between the administration and the faculty....There should be as complete an airing of the accountability issue as possible.*

I certainly think it, SPECS, should be implemented on the basis we had it on: that it was a piloting thing and it was their decision in terms of go/no-go for further implementation....

I'd say to take a close look at what materials are being used prior to the use of SPECS. The newer programs that are coming out in the market, in most subject areas are performance-objective oriented and have built into them a kind of mini-system similar to SPECS. The administration should be sure that the materials involved do not result in a duplication of effort."

SECTION III CONCLUDING REMARKS

In this section some general comparisons and contrasts will be suggested. Because of the nature of the data, it is difficult--if not impossible--to substantiate conclusions. Cross-sectional data from only two districts cannot support causal inferences. Furthermore, it should be borne in mind that data based on individuals' perceptions of phenomena are less objective than data based on direct observations of those phenomena. In spite of these two problems, it is possible to point out patterns in the data from this study.

A Comparison of the Outcomes Desired by Administrators and the Outcomes Reported by Teachers

Pine

Administrators in Pine reported that the most important reason for introducing SPECS into their district was the desire to facilitate curriculum development. Other desired outcomes were (1) improved teacher planning and data collection (2) improved communication between schools and the community and (3) improved administrative management.

Although it is not possible to state with certainty whether or not these goals were achieved in Pine, some evidence is supplied by the teacher perception data. Three of the benefits most frequently cited by Pine teachers were (1) better planning and improved organization, (2) improved communication with colleagues,

and (3) improved coordination with other grade levels (see Table 3). In the questionnaire data (Table 8), 93% of the Pine teachers agreed that their goals and objectives were better coordinated with those of other teachers. In Table 8 it may also be seen that 100% of the Pine teachers agreed that their planning of an entire course had improved, and that 100% of the teachers agreed that they could better measure and evaluate student learning.

On the basis of this evidence, it seems clear that teachers felt that progress had been made in the areas of curriculum development and teacher planning and data collection. Teachers did not comment on the communication between the schools and the community or the quality of central management.

Maple

Maple administrators reported that the introduction of SPECS into their district was intended to improve management, to improve the monitoring of the progress of individual students, to provide performance objectives for students, and to improve teacher planning.

The teacher perception data offers some suggestive, but not conclusive evidence concerning how well these goals were met. The most frequently cited benefit of SPECS by Maple teachers was that the objectives of a course are more clear (see Table 5). However, in Table 8 it may be seen that 63% of the Maple teachers did not agree that their instruction was more individualized and 71% did not believe that their planning of an entire course had

improved. Teachers did not comment on the quality of administrative management.

The Evaluation of SPECS by Administrators and Teachers

Pine

All of the administrators in Pine expressed satisfaction with the SPECS program. Pine teachers strongly agreed. Eighty-eight percent of the Pine teachers stated that the benefits outweigh the problems SPECS had caused, and 100% of Pine teachers indicated that they would adopt SPECS in their classrooms if given a choice (see page 29).

Maple

In Maple two of the three administrators stated that they felt SPECS, or a similar program, should be used in their district. The third administrator expressed uncertainty in his evaluation of SPECS.

Maple teachers, however, tended to evaluate SPECS negatively. Sixty-four percent of the Maple teachers stated that the benefits were not worth the problems SPECS had caused and 71% indicated that they would not choose to use SPECS in their classrooms (see page 29).

A Summary Comparison of Teacher Perceptions in the Two Districts

The most consistent finding in this study was that Pine and Maple teachers disagreed concerning the value of SPECS. Pine teachers strongly agreed that SPECS was worthwhile (page 29) and that they would choose to use SPECS. Compared to Maple teachers, Pine teachers cited relatively many benefits that were derived from SPECS and demonstrated a pro-SPECS bias on the questionnaire (see Table 8). In contrast, a majority of Maple teachers did not feel that SPECS was worthwhile, and a majority indicated that they would not freely choose to adopt SPECS. Compared to Pine teachers, Maple teachers mentioned relatively few benefits from the SPECS program and indicated more negative consequences of SPECS on the questionnaire (see Table 8).

There are many possible reasons for this difference in attitudes between Pine and Maple teachers. While no factors can be identified as causal, several possible influences may be mentioned.

First, teachers in Pine were given a choice whether they as individuals would use SPECS materials, while Maple teachers were not. Although inclusion in decision-making regarding SPECS implementation did not result in initially more favorable attitudes in Pine teachers, it may have influenced later attitudes.

Second, Maple teachers described themselves as having less control over the choice of documents and less control in pacing themselves in the completion of documents than did Pine teachers.

In addition, Maple administrators indicated that they reviewed teachers' SPECS materials fairly regularly while Pine administrators reported only informal conferences with teachers. The differences in perceived control of SPECS related activities may have influenced teacher attitudes. Supplemental evidence for this point is given in the responses to questionnaire item 16 (see page 27). Seventy-four percent of the teaching staff at Maple agreed that SPECS causes more tension between the teaching staff and the administration, while only 6% of the Pine teachers agreed with that statement.

Third, Pine teachers were developing a math program under SPECS while Maple teachers were attempting to use SPECS in conjunction with an established reading program. Pine teachers succeeded in creating a more-or-less tangible product, while Maple teachers had less to show for their efforts.

Fourth, in Pine a full-time curriculum director helped to coordinate and facilitate the implementation of SPECS. Maple had no person acting in this capacity.

Finally, in Maple SPECS was introduced into a new school. Predictably the staff at a new school must accomplish a variety of tasks not present in an established school. The extra demands posed by SPECS activities may have been particularly unwelcome under those conditions.

Whether any of the above factors actually influenced the differential responses of teachers in the two districts is undetermined at this point. It is clear that SPECS was described

very differently by teachers in the two districts and that teachers reacted to SPECS very differently in the two districts.

FOOTNOTES

[1]The interviewers in Pine were Anne Frentz, Emil Haller, and Dick Webb. In Maple, interviewers were Paul Goldman and Sundra Gregory.

[2]Because there was no variance in the responses to this question, it was dropped from the interview schedule during the second of two days of interviewing in Maple.

[3]Chi-square = .44, 1 degree of freedom, significance = .51. All teachers were included.

[4]The relatively high rate of nonresponse to this question was primarily due to its location on the teacher interview schedule. This item (number 26) was located at the end of the schedule. Because of time constraints, some teachers did not have an opportunity to answer.

[5]For each item significance levels were determined on the basis of a Chi-square statistic (corrected for continuity). The differences between Pine and Maple teachers were significant at the .05 level for items 6 and 21; at the .01 level for items 1, 3, and 5; and at the .001 level for all other items in Table 8.

[6]Spearman's rank order coefficient (rho) = -.259.

APPENDIX A

INTERVIEW SCHEDULE: TEACHERS

A. INTRODUCTION

This interview is about SPECS, and how it has affected your work as a (ROLE). We have been asked by the Center for Educational Policy and Management to gather the perceptions of professional educators, like yourself, who have been involved with the SPECS system. We hope you'll share your judgments with us. Our final report is intended to help teachers and administrators in other places decide whether or not they should adopt SPECS in their own districts.

It's important that you know that everything you say in this interview is confidential. I have no connection with (SCHOOL DISTRICT), nor am I part of the team who developed SPECS. We will take your responses and put them together with those of other SPECS users in such a way that no individuals can be identified.

Before we begin, do you have any questions about this study? OK, since we have only _____ minutes, perhaps we should begin.

B. BACKGROUND

First, we'd like to get your perceptions of the adoption of SPECS here in (PLACE).

1. Would you think back to the time when the decision on whether or not to adopt SPECS was being made. How did you feel about SPECS at that time?

   PROBE: What were your initial expectations for SPECS at that time?

2. If you had to categorize your initial feelings about SPECS <u>at that time</u>, would you say that you were:

   a. very favorable toward SPECS
   b. somewhat favorable
   c. indifferent
   d. somewhat unfavorable
   e. very unfavorable

3. Did you personally have any role in the decision to adopt SPECS?

   IF YES: What was that role?

4. Were you given a choice on whether or not to adopt SPECS in <u>your</u> classroom?

   IF YES: Go to Question 5.

   IF NO: Who made the decision? Go to Question 6.

5. Did you feel under any pressure to adopt or not to adopt it in your classroom?

   IF YES: In what way?

C. STATUS AND USE

6. In what subject areas did you first begin using SPECS?

   PROBE: How was the subject area chosen?

   When did you first begin using SPECS in this subject area?

   Have you taught this subject area a second time using SPECS?

7. Since then, have you begun using SPECS in any other curriculum area?

   PROBE: How was this second subject area chosen?

8. Is it your intention to use SPECS in another subject area in the future?

   IF YES: Which one?

   IF NO: Why aren't you going to use SPECS in another subject?

   PROBE: Are there any subjects you teach for which, in your opinion, it would be inappropriate to use SPECS?

9. What is involved when you teach (MAJOR SPECS SUBJECT) under the SPECS format? That is, what is it that you as a teacher do?

10. SPECS suggests that teachers engage in four distinct procedures: specifying objectives, instructional planning tied to those objectives; recording pupil performance on those objectives, and summarizing program information. SPECS developers have provided forms for each of these procedures. Let's take them one at a time. Could you tell me if you personally use:

(SHOW RESPONDENT)

SAY ALOUD SET SHOWN AND DOCUMENT NUMBER CHOSEN

"A" Set--Specifying objectives
"B" Set--Planning instruction
"C" Set--Recording pupil performance
"D" Set--Summarizing program information

PROBE: IF NOT USING A SET(s): Have you developed an alternative set of materials to do (PROCEDURE).

IF YES: Please describe it.

PROBE: Could you tell me the reason you chose not to use Set ____?

11. Could you give me a professional judgment on the quality of SPECS materials provided to you? That is, do they have any particularly important advantages or disadvantages?

PROBE: Each non-teacher made document mentioned in Question 10.

12. Could you describe the training you received for using SPECS?

PROBE: Who gave that training?

Topics covered?

Approximate number of hours?

13. Was that training adequate?

IF NO: In what ways was it inadequate?

13a. Was any released time provided by the district for you to adapt your program to the SPECS format?

IF YES: Was time adequate?

IF NO: Should there have been released time?

13b. Now consider the time you spend on (MAJOR SUBJECT) outside of the time actually spent teaching it to your students--e.g., time spent planning, evaluating, record-keeping, etc. On the average, could you tell me how many hours per week you spend in this way on (SUBJECT)?

14. Is this more, about the same, or less than the amount of outside time you previously spent on preparing (SUBJECT)?

a. MORE (Go to Question 15)
b. SAME (Go to D.)
c. LESS (Go to Question 15)

15. IF MORE OR LESS, about how much more (or less) outside time are you now spending, on the average, per week on (SUBJECT)?

16. IF MORE: In your professional opinion, has the quality of your instructional program in (SUBJECT) improved commensurate with the additional time you're now spending on it?

17. IF LESS: Has the quality of your instructional program changed as a condequence of spending less time on it?

PROBE: How has it changed?

17a. Has the change in the amoung of time you spend on (MAJOR SPECS SUBJECT) had any effect on the outside time you spend on other subjects?

PROBE: How much more or less time are you spending on other subjects?

D. BENEFITS AND PROBLEMS

Now I'd like to ask you a few questions about the benefits and problems which you've experienced with SPECS.

17b. What would you say are the major benefits which you have experienced result from using the SPECS system?

PROBE: Benefits for teachers and students.

18. Often a major change in the way schools are operated will be accompanied by some problems. In your experience, what have been the problems for you as a classroom teacher resulting from using SPECS?

19. Now, considering both the benefits and the problems which you've mentioned, could you give me some kind of overall judgment of value--comparing the benefits with the problems? Have the benefits been worth the problems SPECS has caused?

20. Knowing what you know now, would you choose to adopt SPECS in your classroom if you were given a choice?

20a. If you had to categorize your feeling in this regard, would you say that you would:

FIELD CODE:
a. Certainly adopt SPECS
b. Probably adopt it
c. Probably not adopt it
d. Certainly not adopt it

21. As a teacher you are called upon to make many important decisions as part of your professional work. What decisions do you feel are particularly important?

22. Has SPECS been of any help to you in making any of these decisions?

PROBE: Each decision in Question 21.

TURN OFF TAPE RECORDER

23. Now I'd like to hand you a very brief questionnaire concerning things which some people have said are consequences of SPECS. Would you read these items and just check off whether, in your experience with the system, they are true in your particular case?

24. SOME POSSIBLE CONSEQUENCES OF SPECS	CERTAINLY TRUE	PROBABLY TRUE	PROBABLY NOT TRUE	CERTAINLY NOT TRUE
1. My instruction is more individualized.	___	___	___	___
2. The testing SPECS requires is detrimental to my total progress	___	___	___	___
3. I can better measure and evaluate student learning.	___	___	___	___

SOME POSSIBLE CONSEQUENCES OF SPECS	CERTAINLY TRUE	PROBABLY TRUE	PROBABLY NOT TRUE	CERTAINLY NOT TRUE
4. I feel myself devoting more time to teaching SPECS subjects in the classroom.	___	___	___	___
5. There is more interaction between me and individual students	___	___	___	___
6. Teaching has become more difficult for me.	___	___	___	___
7. Children are shifted among instructional groups more often than they were previously.	___	___	___	___
8. There is less room for spontaneity in my daily teaching under SPECS.	___	___	___	___
9. My goals and objectives are better coordinated with those of other teachers.	___	___	___	___
10. SPECS produces so much information that it is often confusing.	___	___	___	___
11. I have become more involved in budgeting matters.	___	___	___	___
12. My planning of an entire course has improved.	___	___	___	___
13. Student achievement is higher in SPECS courses than it used to be.	___	___	___	___
14. I find that it is easier to report to parents concerning the progress of their child.	___	___	___	___
15. I am better able to choose appropriate course materials.	___	___	___	___
16. SPECS causes more tension between the teaching staff and the administration.	___	___	___	___
17. The attitudes of students toward SPECS subjects has improved.	___	___	___	___

SOME POSSIBLE CONSEQUENCES OF SPECS	CERTAINLY TRUE	PROBABLY TRUE	PROBABLY NOT TRUE	CERTAINLY NOT TRUE
18. Overall, SPECS is more of a hindrance than a help in my daily work.	___	___	___	___
19. Morale of teachers has generally improved as a consequence of the SPECS program.	___	___	___	___
20. SPECS takes too much time.	___	___	___	___
21. SPECS won't work when dealing with the affective domain.	___	___	___	___
22. SPECS involves too much repetition in class preparation.	___	___	___	___
23. Clerical help is necessary to properly implement SPECS.	___	___	___	___

25. Please rank the following individuals or groups according to the amount of benefit that each will receive from the introcution of SPECS into the school district. Those who will benefit most should be ranked "1" and those who will benefit least should be ranked "7." Please use all the ranks from "1" to "7." (Obviously, there is no "correct" ranking; we are only interested in your perceptions on this matter.)

_____ Residents and taxpayers of the district

_____ Teachers

_____ The Superintendent or other top administrators

_____ The School Board

_____ The students

_____ The building principal

_____ CEPM (the developers of SPECS)

TURN ON TAPE RECORDER

26a. Are there any additional consequences of SPECS which came to your mind as you filled out the questionnaire?

26. How frequently have you discussed your completed SPECS materials with either building or district administrators? What was the purpose of those discussions?

PROBE: Would more feedback be useful to you?

27. OK, now let's finish up. How many years have you been a teacher in:

This school _____

This district _____

Total _____

How many students in your class _____.

THANKS

APPENDIX B

INTERVIEW SCHEDULE: ADMINISTRATORS

A. INTRODUCTION

This interview is about SPECS, and how it has affected your work as a (ROLE). We have been asked by the Center for Educational Policy and Management to gather the perceptions of professional educators, like yourself, who have been involved with the SPECS system. We hope you'll share your judgments with us. Our final report is intended to help teachers and administrators in other places decide whether or not they should adopt SPECS in their own district.

It's important that you know that everything you say in this interview is confidential. I am not part of the team who developed SPECS. We will take your responses and put them together with those of other SPECS users in such a way that no individuals can be identified.

Before we begin, do you have any questions about this study?

1. How long have you been (ROLE) in this (SCHOOL OR DISTRICT)?

2. How did you happen to hear about SPECS?

3. What was it about SPECS which appealed to you at that time?

   PROBE: Any problems in the district which you thought SPECS would help overcome?

4. Has your job as a (ROLE) changed in any way as a consequence of SPECS?

5. How about the way you spend your time? That is, do you find yourself spending more or less time on certain of your tasks than you did before SPECS?

   PROBE: Tasks requiring more time.

   PROBE: Tasks requiring less time.

6. How is SPECS being used in this (SCHOOL OR DISTRICT)? That is, what does "doing SPECS" mean?

7. What documents are teachers supposed to prepare when using SPECS?

   PROBE: CEPM or District provided?

8. What happens to each of these documents? That is, do you as (ROLE) review any of them?

   IF NO: Skip to Question 10.

   IF YES: How often do you review (DOCUMENT)?

   What is the nature of that review?

9. Is there any information on any of these documents which you review which is particularly important to you as a (ROLE)?

   PROBE: Why is that information important?

10. As a (ROLE) you are called upon to make many kinds of decision. In your judgment, what are the really important decisions which you make as a (ROLE)?

11. Consider Component One of SPECS, the systems analysis of the (SCHOOL'S OR DISTRICT'S) programs. A major informational product of this component is a flowchart of programs. How have you used this flowchart?

    PROBE: Have you found this flowchart useful in making any decisions?

    What decisions?

    How was it useful for those decisions?

12. Consider Component Two, the program cost analysis. A major informational product of this component is the determination of the dollar cost of each program. How do you use this cost information?

    PROBE: Have you found this cost data useful in making decisions?

    What decisions?

    How was it useful?

13. Finally, consider Component Three, the instructional program planning and evaluating aspect of SPECS. A major informational product of this component of SPECS are the Program Summaries prepared by teachers. How do you use these program summaries?

    PROBE: Have you found this information useful in making any decisions?

    What decisions?

    How was it useful?

14. Speaking of costs, could you give me a rough estimate of what the cost of implementing and operating SPECS might be in this (SCHOOL OR DISTRICT) for a year?

15. Overall, what would you say were the major benefits of SPECS, from your perspective as a (ROLE)?

    PROBE: Benefits of SPECS for District, for (ROLE)

16. Any large scale educational innovation will cause certain problems when it is introduced. In your judgment, what have been the major problems associated with SPECS?

    PROBE: Would you say that the problem is inherent in SPECS, or did it result from implementing SPECS here in (SCHOOL OR DISTRICT)?

17. Considering everything--the costs, benefits and problems--how worthwhile is SPECS?

18. Suppose another (ROLE) was thinking of implementing SPECS in her/his (SCHOOL, DISTRICT), and he was to ask you for advice based on your experience with the system. What would you tell him?

    PROBE: Is there anything else others might want to know before attempting to implement SPECS?

Appendix C

Pine and Maple Teachers Reactions to Some Possible Consequences of SPECS

	POSSIBLE CONSDEQUENCES OF SPECS		CERTAINLY TRUE	PROBABLY TRUE	PROBABLY NOT TRUE	CERTAINLY NOT TRUE
1.	My instruction is more individualized.	Pine	7	7	2	0
		Maple	5	5	9	8
2.	The testing SPECS requires is detrimental to my total program.	Pine	1	0	7	7
		Maple	3	0	14	10
3.	I can better measure and evaluate student learning.	Pine	13	3	0	0
		Maple	7	7	7	7
4.	I feel myself devoting more time to teaching SPECS subjects in the classroom.	Pine	0	6	7	0
		Maple	4	7	12	4
5.	There is more interaction between me and individual students.	Pine	8	5	3	0
		Maple	2	5	12	8
6.	Teaching has become more difficult for me.	Pine	0	0	5	11
		Maple	5	5	7	11
7.	Children are shifted among instructional groups more often than they were previously.	Pine	0	4	8	3
		Maple	1	3	11	11
8.	There is less room for spontaneity in my daily teaching under SPECS.	Pine	0	2	9	5
		Maple	7	3	9	9
9.	My goals and objectives are better coordinated with those of other teachers.	Pine	8	5	1	0
		Maple	3	3	14	7
10.	SPECS produces so much information that it is often confusing.	Pine	1	4	9	2
		Maple	6	13	3	6

	POSSIBLE CONSEQUENCES OF SPECS		CERTAINLY TRUE	PROBABLY TRUE	PROBABLY NOT TRUE	CERTAINLY NOT TRUE
11.	I have become more involved in budgeting matters.	Pine	0	1	5	10
		Maple	1	2	10	13
12.	My planning of an entire course has improved.	Pine	12	4	0	0
		Maple	4	4	12	8
13.	Student achievement is higher in SPECS courses than it used to be.	Pine	2	7	3	0
		Maple	0	2	13	10
14.	I find that it is easier to report to parents concerning the progess of their child.	Pine	8	8	0	0
		Maple	3	6	10	8
15.	I am better able to choose appropriate course materials.	Pine	8	8	0	0
		Maple	3	6	10	8
16.	SPECS cause more tension between the teaching staff and the administration.	Pine	0	1	8	7
		Maple	13	7	7	0
17.	The attitudes of students toward SPECS subjects has improved.	Pine	0	9	4	0
		Maple	1	0	16	8
18.	Overall, SPECS is more of a hindrance than a help in my daily work.	Pine	1	0	8	7
		Maple	11	6	7	3
19.	Morale of teachers has generally improved as a consequence of the SPECS program.	Pine	3	11	2	0
		Maple	1	1	11	15
20.	SPECS takes too much time.	Pine	0	2	9	3
		Maple	14	10	2	2
21.	SPECS won't work when dealing with the affective domain.	Pine	0	1	12	2
		Maple	8	6	11	2
22.	SPECS involves too much repetition in class preparation.	Pine	0	0	11	5
		Maple	11	8	8	0
23.	Clerical help is necessary to properly implement SPECS.	Pine	0	5	10	1
		Maple	17	7	3	0